

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (original). A method for coding transform coefficients in picture and/or video coders and decoders

wherein

for blocks of (video) pictures containing significant transform coefficients, the coding of transform coefficients takes place in such a way that, for each block,

- in a scan process, the positions of significant transform coefficients in the block and subsequently,

- in a reverse scan order - starting with the last significant transform coefficients within the block - the values (levels) of the significant transform coefficients

are determined and coded.

Claim 2 (original). The method according to claim 1,

wherein

each significant transform coefficient of the block other than the last transform coefficient of the block is characterized by a one-bit symbol.

Claim 3 (original). The method according to claim 1,

wherein

for each significant transform coefficient, the sign is indicated by a one-bit symbol (SIGN) and the magnitude is indicated by a binary-coded symbol (ABS).

Claim 4 (original). The method according to claim 1,

wherein

the magnitude is indicated by a symbol (ABS) in unary binarization or by a symbol (ABS) having a prefix part and a suffix part, wherein the prefix part consists of ones and the suffix part is coded in a 0th order exp-golomb code.

Claim 5 (original). The method according to claim 1,

wherein

blocks containing significant transform coefficients are characterized by a one-bit symbol CBP4 in connection with further syntax elements, such as, for example, CBP or macro block mode.

Claim 6 (original). The method according to claim 1,

wherein

by transferring a one-bit symbol (SIG) for each coefficient of a block and a one-bit symbol (LAST) for each significant coefficient of a block, a significance mapping is coded, wherein the transfer takes place in a scan order, (SIG) serves for identifying significant coefficients and (LAST) indicates whether there are further significant transform coefficients in the block.

Claim 7 (original). The method according to claim 6,

wherein

modeling

- for the one-bit symbol CBP4,
- for coding the significance mapping and/or
- for coding the coefficient magnitudes

takes place in a context-dependent way.

Claim 8 (original). The method according to claim 6,

wherein

no significance information (SIG, LAST) is transferred for the last scan position of a block.

Claim 9 (original). The method according to claim 1,

wherein

block types of transform coefficients having comparable statistics are summarized to block categories.

Claim 10 (original). An arrangement having at least one processor and/or chip formed such that a method for coding transform coefficients in picture and/or video coders and decoders can be performed, wherein

for blocks of (video) pictures containing significant transform coefficients, the coding of transform coefficients takes place in such a way that, for each block,

- in a scan process, the positions of significant transform coefficients in the block and subsequently,
- in a reverse scan order - starting with the last significant transform coefficients within the block - the values (levels) of the significant transform coefficients are determined and coded.

Claim 11 (original). A computer program enabling a computer, after having been loaded into the memory of the computer, to perform a method for coding transform coefficients in picture and/or video coders and decoders, wherein

for blocks of (video) pictures containing significant transform coefficients, the coding of transform coefficients takes place in such a way that, for each block,

- in a scan process, the positions of significant transform coefficients in the block and subsequently,

- in a reverse scan order - starting with the last significant transform coefficients within the block - the values (levels) of the significant transform coefficients are determined and coded.

Claim 12 (original). A computer-readable storage medium on which a program is stored, enabling a computer, after having been loaded into the memory of the computer, to perform a method for coding transform coefficients in picture and/or video coders and decoders, wherein

for blocks of (video) pictures containing significant transform coefficients, the coding of transform coefficients takes place in such a way that, for each block,

- in a scan process, the positions of significant transform coefficients in the block and subsequently,

- in a reverse scan order - starting with the last significant transform coefficients within the block - the values (levels) of the significant transform coefficients are determined and coded.

Claim 13 (original). A method wherein a computer program according to claim 11 is downloaded from an electronic data network, such as, for example, the Internet, to data processing means connected to the data network.

Claim 14 (new). A method for arithmetically coding magnitudes of transform coefficients, comprising the following steps:

binarizing the magnitudes of the transform coefficients into a binarization such that for magnitudes smaller than or equal to a predetermined value the binarization corresponds to a unary binarization and such that for magnitudes larger than the predetermined value the binarization is composed of a prefix part consisting of a number of ones corresponding to the predetermined value and of a suffix part representing an 0^{th} order exp-golomb part for the magnitude of the respective transform coefficient minus the predetermined value incremented by one;

binary-arithmetic coding binary decisions of the suffix part using a non-adaptive context; and

binary-arithmetic coding at least one binary decision of the binarization corresponding to a unary binarization and the prefix part using a context with adaptation.

Claim 15 (new). A device for arithmetically coding magnitudes of transform coefficients, comprising:

means for binarizing the magnitudes of the transform coefficients into a binarization such that for magnitudes smaller than or equal to a predetermined value the binarization corresponds to a unary binarization and such that for magnitudes larger than the predetermined value the binarization is composed of a prefix part consisting of a number of ones corresponding to the predetermined value and of a suffix part representing an 0^{th} order exp-golomb part for the magnitude of the respective transform coefficient minus the predetermined value incremented by one;

means for binary-arithmetic coding binary decisions of the suffix part using a non-adaptive context; and

means for binary-arithmetic coding at least one binary decision of the binarization corresponding to a unary binarization and the prefix part using a context with adaptation.

Claim 16 (new). A method for arithmetically decoding magnitudes of transform coefficients binarized such that for

magnitudes smaller than or equal to a predetermined value the binarization corresponds to a unary binarization and such that for magnitudes larger than the predetermined value the binarization is composed of a prefix part consisting of a number of ones corresponding to the predetermined value and of a suffix part representing an 0^{th} order exp-golomb part for the magnitude of the respective transform coefficient minus the predetermined value incremented by one, comprising the following steps:

binary-arithmetic decoding binary decisions of the suffix part using a non-adaptive context; and

binary-arithmetic decoding at least one binary decision of the binarization corresponding to a unary binarization and the prefix part using a context with adaptation.

Claim 17 (new). A device for arithmetically decoding magnitudes of transform coefficients binarized such that for magnitudes smaller than or equal to a predetermined value the binarization corresponds to a unary binarization and such that for magnitudes larger than the predetermined value the binarization is composed of a prefix part consisting of a number of ones corresponding to the predetermined value and of a suffix part representing an 0^{th} order exp-golomb part for the

magnitude of the respective transform coefficient minus the predetermined value incremented by one, comprising:

means for binary-arithmetic decoding binary decisions of the suffix part using a non-adaptive context; and

means for binary-arithmetic decoding at least one binary decision of the binarization corresponding to a unary binarization and the prefix part using a context with adaptation.

Claim 18 (new). A computer program enabling a computer, after having been loaded into the memory of the computer, to perform a method according to claim 14.

Claim 19 (new). A computer program enabling a computer, after having been loaded into the memory of the computer, to perform a method according to claim 16.

Claim 20 (new). A computer-readable storage medium on which a program enabling a computer, after having been loaded into the memory of the computer, to perform a method according to claim 14 is stored.

Claim 21 (new). A computer-readable storage medium on which a program enabling a computer, after having been loaded into the memory of the computer, to perform a method according to claim 16 is stored.

Claim 22 (new). The method according to claim 17, wherein the predetermined value is 14.

Claim 23 (new). The method according to claim 17, wherein the binary arithmetic decoding of the binary decisions of the suffix part using a non-adaptive context is performed using a symbol probability of .5.